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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jie Chen

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EXAMINER

BROOKS, KRISTIE LATRICE

ART UNIT

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1616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,445	Applicant(s) CHEN ET AL.	
	Examiner KRISTIE L. BROOKS	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Application

1. Claims 1-20 are pending. Claims 16-20 are new.
2. Receipt and consideration of Applicants remarks filed on August 14, 2008 is acknowledged.
3. Rejections not reiterated from the previous Office Action are hereby withdrawn. The following rejections are either reiterated or newly applied. They constitute the complete set of rejections presently being applied to the instant application.
4. Claims 14 and 15 were inadvertently left out by the Examiner, therefore the office action is non-final.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

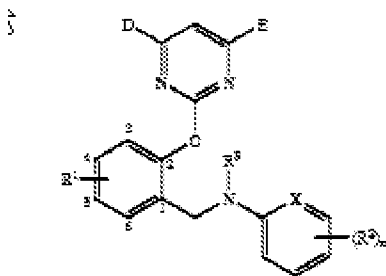
6. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu et al. (WO 02/34724) (US Patent 6,800,590 used as English translation) in view of Balstrusch et al. (US 6,683,027).

Applicant claims a herbicidal composition comprising pyrimidinyl benzylamine herbicide and at least one herbicide selected from a group consisting of acetyl-CoA carboxylase (ACCase) inhibitors, chloroamide herbicides, ethametsulfuron, and benazolin, wherein the components of the herbicidal composition have a synergistic effect. Applicant also claims a process of weed control comprising applying the herbicidal composition. Applicant also claims a method for controlling weed comprising applying the herbicidal composition

Determination of the scope and content of the prior art

(MPEP 2141.01)

Lu et al. discloses new 2-pyrimidinyl-oxy-N-aryl-benzylamine derivatives of formula I



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that are useful as herbicides (see the abstract, Table I and column 1 lines 9-11). The compounds have excellent broad spectrum weed control and are effective active substances for formulating herbicides (see column 13 lines 47-50). They are effective at preventing Graminae weeds, broadleaf weeds, and Cyperus (see column 13 lines 32-36). Examples of weeds controlled include Alopecurus aequalis, Alopecurus japonicus, Stallaria media, etc. (see column 13 lines 37-46). They have high safety to crops, such as rape, cotton, paddy, and soybean (see column 13 lines 24-25). The compounds can be formulated with additives such as carriers, surfactants so as to formulate emulsions, powder, granule or capsule preparations (see column 13 lines 5-12).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Lu et al. do not teach a herbicidal compositions comprising benzylamine derivatives of formula I and additional other herbicides such as acetyl-CoA carboxylase (ACCase) inhibitors, chloroamide herbicides, ethametsulfuron, and benazolin. However, Balstruschat et al. teach herbicides such as acetyl-CoA carboxylase (ACCase) inhibitors, chloroamide herbicides, ethametsulfuron, and benazolin as effective against broad leaf weeds and annual grasses (see the abstract).

Balstruschat et al. teach herbicidal compositions and method for controlling unwanted vegetation comprising a composition comprising an active agent, carrier and or surfactant (see the abstract). The composition contains herbicides effective against broadleaf weeds and annual grasses, such as ethametsulfuron, benazolin, fenoxaprop,

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quizalofop, sethoxydim, alachlor, and naproamide (see claim 5). The combination of active ingredients in the herbicidal composition provides synergistic activity against a broad spectrum of weed species (see the abstract and column 2 lines 32-34). The composition contains from 0.5 to 95% by weight of active ingredients (see column 20 lines 20-22).

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

One of ordinary skill in the art would have been motivated to make a composition comprising benzylamine derivatives of formula I and additional other herbicides such as acetyl-CoA carboxylase (ACCase) inhibitors, chloroamide herbicides, ethametsulfuron, and benazolin because benzylamine derivatives of formula I and herbicides such as acetyl-CoA carboxylase (ACCase) inhibitors, chloroamide herbicides, ethametsulfuron, or benazolin are all taught to be effective against broadleaf weeds and annual grasses as suggested by Lu et al. and Balstrusch et al.

Although Lu et al do not teach the benzylamine derivatives of formula I in a composition with other herbicidal actives, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to combine the herbicides because it is prima facie obviousness to combine compounds taught to be useful for the same purpose (*In re Kerkhoven*, 626 F.2d 846, 850,205 USPQ 1069, 1072 (CCPA 1980)). And in this case, all the herbicides are effective herbicides against broadleaf

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weeds and annual grasses. Thus, one of ordinary skill would combine the components for the benefit of broadening the activity against weeds and grasses. Furthermore, although Lu et al. and Balstruschat et al. do not teach the instant ratio of compounds used, it is merely routine process optimization, to determine the amounts of active ingredients necessary to achieve successful results.

Although Lu et al. and Balstruschat et al. do not teach application to a rape field for the control of weeds, Lu et al. suggest that the pyrimidinyl benzylamine herbicide are highly safe on rape crops. Thus, one of ordinary skill would apply the instantly claimed pyrimidinyl benzylamine herbicides to crops, since any major damage to the crops can be avoided. Furthermore, both Lu et al. and Balstruschat et al. teach herbicides that are effective against the same weeds. Thus, it would have been obvious to one of ordinary skill in the art to use the herbicides in the rape field, because one of ordinary skill in the art would have applied the instant herbicides to any field that is in need of control against weeds they are effective at controlling.

Therefore, the claimed invention would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made because the prior art is fairly suggestive of the claimed invention.

Response to Arguments

Applicant's arguments filed August 14, 2008 have been fully considered but they are not persuasive.

Applicant argues that neither Lu nor Balstruschat teach combining a pyrimidinyl benzylamine herbicide with at least one acetyl-CoA carboxylase inhibitor, chloroamide herbicide, ethametsulfuron, and benazolin would have a synergistic effects to broaden activity against weeds and grasses beyond that available by simply summing the effects of individual components. Applicant further submits data that is suppose to represent unexpected synergistic results of the instant combinations, in the arguments/remarks section.

These arguments are not persuasive. Both Lu and Balstruschat et al. teach the instant compounds are useful against broadleaf weeds and annual grasses. Thus, it is prima facie obviousness to combine compounds taught to be useful for the same purpose (*In re Kerkhoven*, 626 F.2d 846, 850,205 USPQ 1069, 1072 (CCPA 1980)). For the benefit of broadening the activity against weeds and grasses. Although Lu and Balstruschat et al. do not teach a synergistic effect, Applicant is not claiming a specific amount to be used in claim 1. Thus, any amount of the instant compounds would meet the instant limitation.

Applicant has noted pages 36-45 in the instant specification, that is suppose demonstrate unexpected synergistic results. Applicant has provided tables 1-10 that disclose a pyrimidinyl benzylamine herbicide alone, a acetyl-CoA carboxylase inhibitor, chloroamide herbicide, ethametsulfuron, or benazolin herbicide alone, and the combination of a pyrimidinyl benzylamine herbicide and at least one acetyl-CoA carboxylase inhibitor, chloroamide herbicide, ethametsulfuron, or benazolin. The visual evaluation of weed effects for the instant compounds is tested. The combination of

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compounds are said to have a strong synergistic effect against the weeds compared to the instant compounds used separately.

The results are not convincing. The tables do not reflect a synergistic result for all the compounds and combinations tested. For Examples, in Table 1, both pyribambenz-propyl alone and quizalofop-ethyl alone, had already completely killed all the weeds at stage 3 leaf growth, when evaluated for the ALOAE species. It is unclear how the addition of another herbicide would provide a synergistic result. Even at 0 leaf growth, pyribambenz-propyl alone (30g/ha), was 90% effective and quizalofop-ethyl (6g/ha) was 85% effective for the ALOAE species. Combined pyribambenz-propyl and quizalofop-ethyl was 95% effective. This is purely an additive effect. Applicant has not demonstrated anything beyond what is expected.

It is noted that Applicant has provided data that is suppose to disclose unexpected synergistic results for the instant combination of a pyrimidinyl benzylamine herbicide with at least one acetyl-CoA carboxylase inhibitor, chloroamide herbicide, ethametsulfuron, and benazolin. However, Applicant has included these results in the remarks or arguments section and has not properly submitted the evidence in the form of affidavit or declaration. Therefore, the data provided in the remarks section will not be given any patentable weight.

Note MPEP716.01(c) [R-2] I and II: Attorney's arguments cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). Examples of attorney statements which are not evidence and which **must be supported by an appropriate affidavit or declaration include statements regarding**

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unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant.

Therefore, Applicant's evidence of nonobviousness is not persuasive and the rejection is maintained.

Conclusion

7. No claims are allowed.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie L. Brooks whose telephone number is (571) 272-9072. The examiner can normally be reached on M-F 8:30am-6:00pm Est..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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KB

/Johann R. Richter/

Supervisory Patent Examiner, Art Unit 1616